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ENTERGY GULF STATES, INC.	**§**	**PUBLIC UTILITY COMMISSION**
SERVICE QUALITY ISSUES	**§**	
(SEVERED FROM DOCKET NO. 16705)	**§**	**OF TEXAS**

ORDER ON REHEARING

This Order addresses electric service quality issues relating to Entergy Gulf States, Inc. (EGS or the Company). The Commission concludes that the quality of EGS' electric service to its customers in Texas has been less than adequate, specifically since Entergy Corporation acquired Gulf States Utilities, Inc., in 1993. The record evidence reveals a lack of effective and prudent maintenance policies, uneven spending in the area of operations and maintenance (O&M), cuts in experienced personnel, and consequent deterioration in the quality of service. The management of EGS is structured in a way that fails to link resource availability with appropriate performance accountability.

The Commission further concludes that the difficulties EGS has experienced with its quality of service are not simply "customer perception" problems, as claimed by the Company.[1] The problems are real and must be addressed by the Company in a timely and serious manner. To motivate the Company to revise its current approach and promote long-term commitment toward service quality and reliability, the Commission orders a two-part solution designed both to deal with past problems and implement remedies for the future. First, the Company's authorized return on equity (ROE) that otherwise would be adopted in Docket No. 16705[2] will be reduced by 60-basis points and initially refunded to distribution-level customers. Second, going forward, the Company

[1] EGS Initial Brief (IB) at 4 (Dec. 2, 1997); *see also*, Tr. at 231.

[2] *Application of Entergy Texas for Approval of Its Transition to Competition Plan and the Tariffs Implementing the Plan, and for the Authority to Reconcile Fuel Costs, to Set Revised Fuel Costs, to Set Revised Fuel Factors, and to Recover a Surcharge for Underrecovered Fuel Costs*, Docket No. 16705 (pending).

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will have an opportunity to earn back a portion of the ROE reduction, depending on whether its service quality meets specified benchmarks. These benchmarks will establish service reliability standards (outage frequency and duration) and customer service standards (billing errors, call-center performance, service installation, line extension, and street light replacement). The margin achieved above the benchmarks will reflect the level of improvement (or, if below, a lack thereof) and will be used to determine whether the Company is entitled to recoup a portion of the ROE reduction.

I. Procedural History

EGS filed its transition/rate case in Docket No. 16705 on November 27, 1996. The Commission referred the case to the State Office of Administrative Hearings (SOAH) on December 5, 1996. On January 24, 1997, the Commission issued a preliminary order in Docket No. 16705 directing parties, among other things, to "address specific service quality standards that will apply after the transition [proposed by EGS]."[3]

On March 7, 1997, the Commission issued a supplemental preliminary order in Docket No. 16705 that dealt specifically with service quality issues. This order required that Docket No. 16705 address, in addition to others, the following issues: (1) Does EGS have an effective and prudent management policy in place that devotes sufficient resources to ensure adequate and reliable service to its ratepayers? (2) Are there patterns of variable service quality in EGS' service territory, and if so, what is the cause and potential resolution of these variations? and (3) What procedures can and should the Commission implement to monitor service quality on EGS' system, and to respond to situations in which EGS' service quality falls below the service quality benchmark levels?

[3] Preliminary Order at 12 (January 24, 1997).

Proceeding with EGS' rate case, SOAH established a four-phased hearing schedule to address the numerous transition and rate issues in Docket No. 16705. The service quality issues were to be dealt with in the "Competitive Issues" phase, scheduled to begin in early November 1997.

After EGS and interested parties had filed written testimony and exhibits,[4] but before the Competitive Issues phase commenced at SOAH, the Commission determined that it would itself hear and resolve the service quality issues. Accordingly, on November 4, 1997, the Commission issued an order severing the pending service quality issues from Docket No. 16705, establishing Docket No. 18249 to deal with those issues, and establishing procedures by which the Commission would hear and rule on the case.

The Commission convened a hearing on the merits of EGS' service quality on November 20 and 21, 1997. Chairman Pat Wood and Commissioner Judy Walsh presided over the hearing. The participating parties included the Company, the Cities, the High Load Factor Commercial Customer Group (HLFCCG), and the General Counsel, all of whom presented their direct cases and conducted cross-examinations. Chairman Wood and Commissioner Walsh also directed questions to the witnesses. Observers from the Office of Public Utility Counsel (OPUC) and the Attorney General's Office attended the hearing. The active parties filed initial and reply briefs on December 2 and 9, 1997, respectively. OPUC filed a statement on December 2, 1997, supporting the briefs of the Cities and HLFCCG, and the Attorney General's Office filed a statement on December 9, 1997, in support of the same briefs.

The Commission issued the final order in this docket on February 13, 1998. On March 5, 1998, EGS and General Counsel filed motions for rehearing. The replies to the motions were due on March 16, 1998, but based on parties' request, the Commission

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[4] Some of the testimony, particularly from the Company's witnesses, was originally pre-filed for the Revenue Requirement phase.

granted an extension for filing of replies until March 25, 1998. On March 19, 1998, the Commission ratified the extension of deadline to file replies and also extended until May 14, 1998, the time to rule on the motions for rehearing pursuant to GOV'T CODE 2001.146(e).

On March 25, 1998, the parties filed a joint reply to motions for rehearing and motion for entry of order consistent with the parties' stipulation and agreement (the Stipulation). General Counsel, EGS, OPUC, and HLFCCG signed the Stipulation. At the April 1, 1998 open meeting, the Commission granted rehearing and approved the Stipulation. The provisions of the Stipulation are reflected in this Order.

II. Background

Entergy Gulf States, Inc., is a public utility subject to the jurisdiction of this Commission in accordance with Public Utility Regulatory Act (PURA) §§ 14.001, 31.001, 32.001, 33.122, and 36.001 through 36.156.[5] EGS is a wholly-owned subsidiary of Entergy Corporation (Entergy), a holding company incorporated in Delaware and registered with the federal Securities and Exchange Commission in accordance with the Public Utility Holding Company Act. Entergy acquired Gulf States Utilities, Inc., to create EGS, effective on December 31, 1993.[6]

EGS operates in Louisiana and Texas, and is affiliated through its holding company with investor-owned electric utilities located in Louisiana, Mississippi, and

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[5] Public Utility Regulatory Act, TEX. UTIL. CODE ANN. 11.001-63.063 (Vernon 1998).

[6] *Application of Entergy Corporation and Gulf States Utilities Company for Sale, Transfer, or Merger,* Docket No. 11292 (Mar. 25, 1994).

Arkansas.[7] The EGS service territory in Texas is located in the southeastern part of the state, and contains industrialized areas in the vicinity of Beaumont and Port Arthur, as well as a coastal zone. The differing geographic and climatic characteristics of the Company's service territory have led to the creation of three distinct sectors: Western I (suburban with dense trees), Western II (rural with fewer trees), and Gulf (both rural and urban).

Entergy's headquarters is in New Orleans; EGS' principal office in Texas is located in Beaumont. In Texas, the Company serves approximately 318,279 customers[8] and has 11,472 miles of distribution lines. There are 394,865 poles[9] in its system, with 431 feeders.[10] The transmission system--built as early as 1924, with approximately half of the lines added in the 1950's and 1960's and only 12 percent of lines built or rehabilitated after 1977--has shown generally good performance.[11] This Order is concerned predominantly with the state of the Company's distribution system.

III. Discussion and Analysis of Issues

A. General Concept of Reliability

Electricity plays a vital role in our lives. Most, if not all, aspects of our society, including industrial production, commerce, and individual lifestyles, are built around a reliable and adequate supply of electrical energy. People have come to depend on

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7 Entergy Arkansas (including the Arklahoma Corporation), Inc., Entergy Louisiana, Inc., Entergy Mississippi, Inc., and Entergy New Orleans, Inc. These companies, together with EGS, form the "Operating Companies."

8 *Ice Storm '97 Field Investigations*, Project No. 16301, at V-25 (June 24, 1997).

9 General Counsel Ex. 5, Burrows Direct Testimony at 33, Attachment JDB-2.

10 General Counsel Ex. 24.

11 General Counsel Ex. 1, Ethridge Direct Testimony at 6.

electricity being available when they need it. In fact, for most customers, delivery of electrical power and reliability of its delivery have become two inseparable expectations. Electric utilities generally recognize and accept this dependence and have responded to it by constructing and operating generation and delivery systems of superior reliability.[12] State law formalizes the utilities' obligation to provide reliable service in PURA § 37.151. Reliability, however, is not a static concept. As customer bases grow and systems age, utilities face new challenges that must be acknowledged and resolved to maintain reliable service.

In addition to sufficient generating capacity, transmission and distribution facilities are built so that a specified degree of reliability is achieved. The goal is to provide required amounts of energy with no, or few, interruptions, while maintaining a reasonable cost of the overall system. Smooth and continuous interaction of the various elements of the electrical system results in reliable performance of the overall system. For consumers, this reliability is reflected in uninterrupted power supply, the degree of which may be measured by the frequency, duration, and magnitude of adverse effects on consumer service.

B. Legal Standards

PURA imposes various obligations on utilities and the Commission regarding the provision of electric service to Texas consumers. Specifically, PURA § 37.151 requires that a regulated utility provide continuous and adequate service in its certificated service territory. PURA § 38.001 directs utilities to furnish service, instrumentalities, and facilities that are safe, adequate, efficient, and reasonable. Parallel responsibilities rest with the Commission. In accordance with PURA § 36.052(3), the Commission must consider the quality of a utility's services in establishing a reasonable return on invested

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[12] NORTH AMERICAN ELECTRIC RELIABILITY COUNCIL, RELIABILITY CONCEPTS 1-2 (Feb. 1985).

capital.[13] This same section of PURA directs the Commission to consider the quality of the utility's management and the efficiency of its operations when establishing a reasonable return. Moreover, PURA § 38.071 authorizes the Commission to order an electric utility to provide "specified" improvements in its service.

C. Analysis of Issues

The Commission's analysis of the issues in this case is divided into five general topics: (1) physical facilities, maintenance, and monitoring; (2) vegetation management; (3) emergency preparedness, response, outage restoration, and treatment of storm data; (4) personnel levels, management practices, and spending levels; and (5) pockets of unreliable service and overall customer service. The following narrative lays out essential points of the relevant issues; with additional, specific information contained in the Findings of Fact in Section IV.

1. Physical Facilities, Maintenance, and Monitoring

a. Condition of Poles

As stated above, EGS' transmission system does not pose serious concerns since it has performed adequately over the last few years, during which only a minimal number of transmission-related outages or circuit-breaker operations occurred. EGS' inspection and treatment programs relating to its transmission system seem to be working

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[13] There are several precedent cases in which the Commission reduced ROE to address inadequate quality of service. *See, e.g., Application of General Telephone Company of the Southwest for Authority to Increase Rates,* Docket No. 3094, Final Order, 6 P.U.C. BULL. 92, 123 (Aug. 8, 1980) (imposing penalty on company for inadequate service quality); *Application of General Telephone Company of the Southwest for Authority to Increase Rates*, Docket No. 3690, Final Order, 7 P.U.C. BULL. 11, 39 (June 18, 1981) (sustaining penalty due to persistence of poor service); *Application of General Telephone Company of the Southwest for Authority to Increase Rates*, Docket No. 4132, Final Order, 7 P.U.C. BULL. 646, 648 (Jan. 14, 1982) (lifting penalty after service was shown to improve for a sufficient period of time); *Application of Houston Lighting and Power Company*, Docket No. 4540, Final Order, 8 P.U.C. BULL 75 (Dec. 6, 1982) (reducing company's ROE because of service quality and reliability concerns).

satisfactorily, with transmission line rights-of-way (ROW) appearing generally clear.[14] For these reasons, the Commission concludes that the physical state of the Company's transmission system is adequate. The remainder of this Order will address the Company's distribution system and related services.

Primary evidence for the condition of EGS' distribution system, including wires, poles, pole appurtenances, and transformers, comes from the Osmose Wood Preserving Company (Osmose) inspections conducted in 1995 and 1996, a report filed by Drash Consulting Engineering, Inc. (Drash), and limited Staff surveys.[15] In general, most of the poles in the Texas portion of the Company's distribution system are in good condition. There are, however, numerous poles with physical deficiencies or in need of extensive and comprehensive vegetation clearing.[16]

The Osmose inspectors, contracted by EGS in 1995 and 1996, examined approximately 37,000, or 10 percent, of the poles and crossarms and found that on average 17.9 percent of poles in eight different areas showed structural decay.[17] The actual percentages, however, varied greatly, with one area having more than 37 percent of the poles with some decay, a condition clearly impermissible for any transmission and distribution (T&D) system.[18] While the Osmose inspections were not random, and in fact, as the Company asserts, focused on particularly troubled spots, the results show that there are many poles in unsatisfactory condition.

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[14] General Counsel Ex. 1, Ethridge Direct Testimony at 6-8, 41-43.

[15] General Counsel Ex. 1, Ethridge Direct Testimony at 15; General Counsel Ex. 4; General Counsel Ex. 5, Burrows Direct Testimony, Attachment JDB-3.

[16] *Id.* at 5.

[17] General Counsel Ex. 5, Burrows Direct Testimony at 17.

[18] *Id.*, Appendix Workpapers at 2.

The purpose of the Drash report, contracted for by the Commission, was to collect data regarding the condition of EGS' overhead distribution system. The survey was based on a sample of 33 uniformly distributed substations from the Texas portion of EGS distribution system.[19] The Drash inspectors examined 582 poles on various feeders originating at these substations.[20] The Drash survey found 59 poles with structural deficiencies and 72 poles with ROW encroachments.[21] During the hearing, EGS raised questions about the accuracy and statistical reliability of the Drash report. The Commission concludes that the Drash study lacked specific evaluation criteria and necessary randomness to draw conclusions about the entire EGS Texas system. The Commission, however, does not reject the Drash report, as requested by the Company;[22] rather, the Commission relies on the report to the extent that its findings have been confirmed by the Osmose inspections and Staff surveys. Considered together, the collected data persuasively indicate that numerous poles show decay, are in need of repair or replacement, and that vegetation growth poses a serious problem on some ROW.

b. Pole Inspection Program

The Company conceded that it does not have a traditional pole inspection program in place.[23] Since the Osmose inspections in 1996, there have been no pole or crossarm inspections on Texas territory.[24] Post-merger, EGS reduced the number of inspections; for example, in 1995, 29,294 poles and 43,941 crossarms were inspected, but in 1996, only 7,939 poles and 11,908 crossarms underwent inspections.[25] The Company

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[19] *Id.* at 19.

[20] *Id.* at 20.

[21] *Id.* at 21-22.

[22] Tr. at 552-60, 606-15.

[23] Tr. at 176, 751-52.

[24] Tr. at 170, 177-78.

[25] General Counsel Ex. 19 at Bates Stamp 0194741.

is now planning to hire Osmose to carry out a ten-year inspection program that will cover the entire system (35,000 poles inspected annually).[26] Evidence presented in the case makes it clear that EGS' pole inspection and repair work cycles have not been sufficiently rigorous, continuous, or frequent to maintain all of its facilities in the condition required to meet its reliability and service obligations under PURA.

c. Maintenance Practices

A review of maintenance records shows that line maintenance and vegetation control are reactive in nature;[27] there is a lack of written, specific, and preventive maintenance policies;[28] and priority is given to capital additions to the detriment of adequate maintenance practices.[29] For example, total line-miles actively maintained by the Company's employees dropped 30 percent from 1994 to 1996.[30] The Company's internal risk assessment study points to an absence of a strategic plan, and consequent inadequacies in resource sharing and work planning.[31] Based on the evidence, the Commission concludes that EGS has failed to establish and carry out distribution maintenance policies in a manner sufficient to ensure adequate and reliable delivery of electric service.

d. Data Collection

The Company presented a variety of data to support its claim of good performance; however, the accuracy of its data collection practices came under a great deal of scrutiny during the hearing, bringing into question the ability of the Company to

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26 Tr. at 751-52.

27 General Counsel Ex. 4, Gonzalez Direst Testimony at 6-8, Drash Report at 45-46.

28 Tr. at 59; HLFCCG Ex. 1, Patton Direct Testimony, Entergy Internal Audit and Risk Assessment.

29 General Counsel Ex. 1, Ethridge Direct Testimony at 19-20; General Counsel Ex. 8; General Counsel Ex. 19.

30 Tr. at 737.

31 General Counsel Ex. 30 at 2.

monitor its performance fairly. The parties debated at length the merits and mechanics of various system monitoring tools and reporting standards. These include: (1) System Average Interruption Frequency Index (SAIFI), a measure of the number of interruptions per year for the average customer;[32] (2) System Average Interruption Duration Index (SAIDI), a measure of the total interruption time experienced by the average customer;[33] (3) Customer Average Interruption Duration Index (CAIDI), defined as the ratio of SAIDI/SAIFI;[34] (4) Distribution Interruption System (DIS), a database to capture reliability performance and indices for individual feeders;[35] (5) Average System Availability Index (ASAI),[36] a measure of the total time of service availability to the average customer; and (6) TACTICS, which captures data on every device down to the transformer level to measure each device's operational performance and impact on customers.[37] In addition, the Company utilizes a System Control and Data Acquisition device (SCADA) to measure data for large interruptions such as feeder breaker outages,[38] and the new Automatic Mapping and Facilities Management System (AM/FM), developed in order to determine where an outage occurred and what device caused it, which will be completed by the year 2000.[39]

General Counsel, Cities, and HLFCCG argued that the number of customers affected by outages and the duration of such outages are difficult to determine because

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[32] HLFCCG Ex. 1, Patton Direct Testimony at 9-12.

[33] *Id.* at 10.

[34] *Id.*

[35] *Id.* at 11.

[36] General Counsel Ex. 3, Eckhoff Direct Testimony at 20.

[37] Tr. at 448-450.

[38] Tr. at 238, 443.

[39] Tr. at 429-30.

EGS excluded relevant information between 1994 and 1996.[40] For example, for the first six months of 1996, the Company reported 35 to 40 percent fewer outages than were reported on average during the first six months of the years 1991-94.[41] In trying to explain the discrepancies in the data, Company officials described changing data collection standards applied to the various outage-causing events. At different times, the Company excluded outages caused by equipment failures; outages affecting feeders with fewer than 500 customers; storms, generation or transmission outages; or trees falling into the ROW ("non-preventable" trees).[42] The Company data is generally confusing and comparisons over a period of several years are difficult to make because of changing standards;[43] in addition, the inaccuracies are further compounded because, for example, outages on feeders with fewer than 500 customers can nevertheless result in very long outage durations, especially when those feeders are energized last.[44]

The evidence shows that Company linemen sometimes made subjective determinations as to the cause, duration, or effect of an outage, thus causing the Company's SAIFI and SAIDI numbers to be unreliable.[45] The evidence also revealed that most historically deficient feeders serve rural customers.[46] This observation is supported by EGS' testimony that it prioritizes restoration of feeders serving the greatest numbers of customers, thus leaving those in lower-density areas (most likely rural) to experience recurring and longer service reliability problems.[47]

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[40] *See* HLFCCG Ex. 2, Entergy Southwest Reliability Report 1994-1996; Tr. at 41-43.

[41] HLFCCG Ex. 3 at slide 9.

[42] Tr. at 41-44, 54, 62-66.

[43] *Id.*; HLFCCG Ex. 2 at Bates Stamp 0232514.

[44] Tr. at 67.

[45] Tr. at 47-48.

[46] Tr. at 707, 821

[47] The Rebuttal (redacted) Testimony of Dereck Hasbrouck on behalf of the Company contains this quote: "One important fact to keep in mind when considering a customer or group of customers who consistently

General Counsel, Cities, and HLFCCG asserted that the Company has manipulated information to show better performance.[48] A significant problem with the Company's use of performance and reliability indices is that they reflect outage frequency and duration on a system-wide rather than feeder-by-feeder basis which can mask poor performance of individual feeders.[49] For example, EGS reported a system-wide SAIDI of 133 minutes for 1996,[50] but this measure failed to reveal that 83 feeders or primary circuits experienced outage times in excess of 200 minutes.[51] The average customer on these circuits experienced an outage duration of 3.3 hours.[52] More notably, customers on feeder Tamina encountered 41.3 hours of outage time in one year.[53] It is apparent that system-wide averages used by the Company cannot be relied on to disclose many of the localized service difficulties.

The historic data presented by the Company is not accurate and consistent as the Company itself admitted to not collecting all relevant data,[54] changing the standards for data collection, and submitting inconsistent data for ASAI and SAIFI.[55] Even the

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receive less reliable service than the average customer is that there are geographic and environmental conditions beyond the utility's control. These conditions, in combination with the construction cost considerations may effectively limit the realistic reliability expectations for customers in certain areas. In EGS Texas' service territory, the Bolivar Peninsula and Sabine Pass may be examples where these constraints come into play ." EGS Ex. 11, Hasbrouck Rebuttal Testimony at 39.

[48] Tr. at 278-79, General Counsel Ex. 3, Eckhoff Direct Testimony at 54.

[49] General Counsel Ex. 3, Eckhoff Direct Testimony at 18, Appendix H and I; Tr. at 41-67; HLFCCG Ex. 1, Patton Direct Testimony at 12-14.

[50] General Counsel says SAIDI in 1996 was 157 minutes. General Counsel Ex. 22; HLFCCG Ex. 1, Patton Direct Testimony at 13.

[51] HLFCCG Ex. 1, Patton Direct Testimony at Exhibit ADP-3.

[52] *Id.*

[53] General Counsel Ex. 3, Eckhoff Direct Testimony, Appendix H..

[54] Tr. at 706.

[55] General Counsel Ex. 3, Eckhoff Direct Testimony at 54.

Company's internal audit revealed that reporting of outages has not been consistent.[56] EGS cannot correctly measure how many individual customers lose service because of an outage affecting parts of a feeder.[57]

The Commission concludes that the types of information monitoring and reporting tools relied on by the Company are useful, but they must be employed uniformly and consistently to be meaningful measures of service quality. The Commission finds that the level of EGS' service quality and reliability, as documented through the Company data, is unreliable because the data fail to record and report all events accurately and consistently. Pockets of inadequate service are ignored by system-wide measures, and such measures do not identify recurring individual-feeder problems.

2. Vegetation Management

Vegetation management is the catch-all description for programs involving the removal of trees, bushes, or vines that overhang, grow into, or toward conductors strung along the Company's ROW. The purpose of vegetation management is to ensure, to the greatest extent possible, that vegetation in, or near, the ROW does not come into contact with the conductors and thereby cause wire breakage or ground faults.[58] During the hearing, Company witnesses referred to scheduled tree trimming, carried out on a three-year cycle in urban areas and a six-year cycle in rural areas. The evidence presented, however, was not clear on whether EGS actually followed the stated cycles.[59] Nonetheless, the Company argued that its vegetation management has been adequate and

[56] Cities Ex. 1, Lawton Direct Testimony at 12.

[57] Tr. at 445-46.

[58] Tr. at 176-178.

[59] Tr. at 602, 728.

consistent with industry practice.[60] In fact, EGS asserted that it had improved vegetation management and introduced efficiencies when compared to the pre-merger period.[61]

General Counsel, Cities, and HLFCCG presented extensive evidence to document serious neglect of vegetation management and consequent heightened risk to the distribution system. The majority of incidents included in the evidence involve three types of vegetation-related damage: wires expanding down into vegetation due to increased load or lack of under-clearance; overhanging limbs breaking or growing into wires in non-inclement weather; and limbs or trees bending or breaking onto wires due to wind, ice build-up, or other adverse weather conditions. These parties also argued that the ROW surveyed were in need of extensive clearing and that vegetation encroachments posed unacceptable risks.[62] Cities claimed that neglected vegetation management multiplied the severity of the ice storm in January 1997.[63] The number and duration of vegetation-caused service interruptions almost doubled in the last four years,[64] and vegetation-related SAIDI and SAIFI have worsened since the merger.[65]

The author of a vegetation management study, commissioned by the Company, observed that there were areas where maintenance clearing had been deferred until brush reached the conductors.[66] The study proposed specific and comprehensive ways for

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[60] EGS Ex. 10, Ervin Rebuttal Testimony at 55, 59. EGS states that more than 80 percent of the Company's vegetation management expenditures are allocated to trimming, which is above the industry norm.

[61] EGS Ex. 8, Ervin Supplemental Direct at 22.

[62] General Counsel Ex. 4, Gonzalez Direct Testimony at 6-8; General Counsel Ex. 1, Ethridge Direct Testimony at 8-11.

[63] Tr. at 305-08.

[64] HLFCCG Ex. 1, Patton Direct Testimony, Exhibits ADP-10, ADP-13 (illustrating values for system-wide SAIDI for Texas increased from 21.17 in 1994 to 40.36 in 1997, and SAIFI doubled, from .31 in 1994 to .63 in 1997).

[65] General Counsel Ex. 37.

ROW maintenance, but the Company presented no evidence that the study's findings had been implemented. An e-mail sent in August of 1997 by an EGS network manager in Beaumont identified trees touching conductors as one of the preventable root causes of several recent outages.[67]

The Commission concludes that the level of the Company's vegetation management is unacceptable and has significantly affected the reliability of the distribution system in recent years. While such a deficiency may not in itself impact a typical system severely, this deficiency is magnified when the inadequacy of the infrastructure and the nature of the weather in the Company's service area are taken into account.[68] The lack of preventive vegetation control efforts by the Company and neglect of regular vegetation clearing have led to the creation of unnecessary risks. The Commission does not suggest that "ground-to-sky" tree trimming is necessary, but the Company clearly has significant room for improvement. The recent hiring of 30 new vegetation clearance crews, while welcome, confirms the existence of an unacceptable backlog in vegetation control.[69] As will be discussed below, the Commission is also concerned that managers in Texas have no clear line of authority or resources necessary to implement effective vegetation management policies.

[66] General Counsel Ex. 27, Environmental Consultants, Inc., Report on Distribution Line Clearance Program (Jul. 1994) at I-2-3.

[67] HLFCCG Ex. 6.

[68] Tr. at 308.

[69] Tr. at 730-31, 787.

3. Emergency Preparedness, Response, Outage Restoration, and Treatment of Storm Data

a. January 1997 Ice Storm

In mid-January 1997, many parts of Texas experienced a severe ice storm; disruptions of electric service were sustained by most utilities in the state.[70] The impact on EGS' territory was particularly hard. At one time, up to 120,000 of EGS' customers were without power and it took seven days to complete the restoration process.[71] Utilizing help from other utilities and contract workers, EGS had more than 2,700 personnel working to restore service.[72] In assessing the Company's performance, EGS officials compared it to that of other utilities and concluded that its efforts were not only adequate, but even "very good."[73] They blamed most of the damage on excessive ice.[74]

This view was not shared by the other parties.[75] HLFCCG played excerpts from taped conversations conducted by the Company's dispatchers during the storm, which highlighted insufficient numbers of personnel and initially inadequate efforts to repair the damage.[76] The Cities asserted that they had to use their own employees for repairs, including the handling of live wires,[77] and that in some instances they were unable to reach Company employees at all.[78] One of the Cities' exhibits was a letter, dated August

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[70] General Counsel Ex. 2B, Hughes Workpapers, Ice Storm '97 Field Investigations Project 16301 at II-1.

[71] EGS Ex. 8, Ervin Supplemental Direct Testimony at 53.

[72] *Id.*

[73] *Id.* at 74.

[74] *Id.* at 74-75.

[75] Tr. at 379; Cities Ex. 1, Lawton Direct Testimony at 12.

[76] Tr. at 87-92.

[77] Tr. at 376.

[78] Cities Ex. 2, Kimler Direct Testimony at 2.

17, 1995, from several fire chiefs in EGS' service territory to the Company describing various problems with emergency procedures, such as not being able to reach the Company's 1-800 telephone number, and, apparently, this problem persisted.[79] Some other cities' representatives testified, however, that the Company's restoration efforts were good.[80] The significant disparities in the Company's response to the damage caused by the ice storm suggest a need for greater and clearer communication between the Company and all cities, including development of contacts before an emergency occurs.

The Company has an emergency plan on file with the Commission; the plan contains no obvious deficiencies.[81] As is industry practice, EGS also has agreements with other utilities for emergency cooperation; those agreements, however, are not in writing.[82]

The January 1997 ice storm was certainly a severe storm that would have adversely affected even the best-maintained distribution system. EGS' distribution system, however, is not the best-maintained. A major cause of the outages during the storm were broken or bowed ice-laden tree limbs overhanging the wires. Tree limbs in ROW overhanging distribution lines pose a threat to system reliability, and are largely within EGS' control. The Company's failure to clear the limbs before the storm was a major factor in the number and duration of outages experienced by customers.[83] While Company's initial efforts to mobilize and deploy additional non-EGS personnel were slow and cause concern,[84] vegetation management failures greatly aggravated the

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[79] Cities Ex. 2, Kimler Direct Testimony at 7.

[80] Tr. at 377, 381, 391.

[81] General Counsel Ex. 2, Hughes Direct Testimony at 21.

[82] Tr. at 676-77.

[83] General Counsel Ex. 2, Hughes Direct Testimony at 17.

[84] Tr. at 379.

situation. The Company has experienced major storms in 1994, 1995, and 1997.[85] The weather, however, cannot be an excuse for poor service. While the Commission does not expect 100 percent reliability, the system must be built and maintained taking the local geographic and weather conditions into account.

b. Treatment of Storm Data

The Commission has required utilities to report the causes of interruptions, including the extreme storms. EGS, however, excludes outage duration and frequency data from its SAIDI and SAIFI reports if the data are attributable to a "major storm."[86] As defined currently by the Commission, major storms include situations in which there is a loss of power to 10 percent or more of customers in a region over a 24-hour period and full restoration is not achieved within 24 hours.[87] EGS' definition of a major storm counts any event in which 10 percent or more of a region's customers are interrupted for 24 hours or more, and is similar to the Commission's definition.[88]

HLFCCG argued that interruptions associated with major storms should be included in the computation of reliability indices. HLFCCG maintains that the design and maintenance of lines, and therefore their condition under the stress of severe weather, is within the control of the utility.[89] Exclusion of major-storm interruptions from reliability indices could encourage reduced preventive maintenance, including vegetation management, and reductions in force needed for restoration efforts.[90]

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[85] Tr. at 214, 377.

[86] Tr. at 54.

[87] EGS Ex. 10, Ervin Rebuttal Testimony at 30.

[88] *Id.*

[89] HLFCCG Ex. 1, Patton Direct Testimony at 14.

[90] *Id.* at 15.

The Commission is reluctant to allow the Company to exclude major-storm data from its overall reports because such reports may be incorrectly perceived as an indication that overall service quality is better than it actually is. Also, leaving major-storm data out may obscure the fact that poor management and maintenance, and not just the severity of the weather, contribute to or cause a weather event to become serious enough to be classified as a "major storm." Despite a great deal of controverting testimony by customer groups, the Company continues to assert that the acknowledged problems during the 1997 ice storm were a "storm-of-the-century" aberration.[91] Allowing the Company to carve out major storms from its outage-reporting data would mask the seriousness of service quality problems that occur on its system under all conditions.

The Commission understands that if a truly major storm affects the system, the Company cannot be expected to restore power and respond to increased customer calls as fast as it would in a more "normal" or day-to-day situations. Therefore, the Commission will allow the segregation of major from non-major storm data in outage frequency and duration reports. The major storms, defined by the severity of the weather conditions, rather than by the outage duration, will be reported and evaluated separately, as discussed in the "Remedies" section below.

4. Personnel Levels and Management Practices; Spending Levels

a. Personnel Levels

All parties agreed that post-merger personnel cuts were executed, ostensibly, in order to save costs. The Company asserted that cuts were possible because of increased efficiencies and that the permanent employees were simply replaced with contract workers.[92] The other parties maintained that cuts were not only too extensive, but

[91] Tr. at 225; EGS Ex. 10, Ervin Rebuttal Testimony at 32-35.

[92] Tr. at 160, 236; EGS Ex. 8, Ervin Supplemental Direct at 19; EGS Ex. 10, Ervin Rebuttal Testimony at 51.

resulted in a loss of many years of worker experience that could not be compensated for by contract workers who may lack knowledge of the system or loyalty to the Company. For example, General Counsel witness Ethridge cited the forced departure of 66 employees with an average of 18 years of experience each.[93] A precise number of lost employees was not conclusively proven: the Company maintained that total net loss was only 23,[94] but HLFCCG, for instance, asserted that in the space of three years, the jobs of 67 linemen were eliminated.[95]

A related issue concerned the Company's ability to evaluate contract workers' performance: while the Company felt confident about increased efficiency of its hiring practices, it did admit to not having performance measures for contract workers.[96] General Counsel presented Company documents showing that controls over contract worker management were not effective.[97] An internal risk assessment audit, conducted by the Company, also concluded that no formal and consistent process existed to monitor contractor performance, that management employees did not generate necessary reports to allow proper monitoring, and that distribution contracts were not competitively bid.[98] An additional concern presented by Cities dealt with the decrease in the number of operational staff while regulatory staff increased; this led Cities to conclude that the Company had insufficient focus on system maintenance matters.[99]

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[93] General Counsel Ex. 1, Ethridge Direct Testimony at 37.

[94] Tr. at 236; EGS Ex. 10, Ervin Rebuttal Testimony at 52.

[95] HLFCCG IB at 6 (referring to General Counsel Ex. 16 at 2, and Ex. 17 at 2).

[96] Tr. at 249-50.

[97] General Counsel IB at 14 (referring to HLFCCG Ex. 13, Entergy Internal Audit and Risk Assessment).

[98] HLFCCG Ex. 1, Patton Direct Testimony, Risk Assessment Attachment at 3-4, 6.

[99] Cities Ex. 1, Lawton Direct Testimony at 12; Tr. at 164.

The Commission concludes that, post-merger, EGS cut many experienced employees, some of whom were consequently replaced by contract workers. The Commission, however, will not prescribe what personnel levels the Company should maintain. It is up to EGS to make sure it has enough workers to carry out proper maintenance and necessary emergency responses, along with having well-defined performance measures for both regular and contract employees.

b. Management Practices

Because the various operational entities under the holding company are split both along functional and geographic lines, tracing management structure poses some difficulties. According to Company witness Johnny Ervin, a network manager is located in Beaumont, along with a reliability supervisor.[100] There are two levels of customer service managers located in Beaumont; the vice president of customer service is located in Jackson, Mississippi. During the hearing, however, the Company presented its director of performance measurement, located in Little Rock, Arkansas, to speak on customer service issues. The network manager and reliability supervisor report to a franchise director (in Beaumont) and reliability director (in New Orleans, Louisiana), respectively. Both of these directors report to a senior vice president of distribution operations, who is located in New Orleans and is actually employed by Entergy Services, Inc. The senior vice president answers to a utility group president, who has above him the chief operating officer and, finally, the chief executive officer of Entergy. According to Mr. Ervin, this reflects a new and "flatter" organizational structure, designed to promote better communication.[101] None of the managers in Beaumont reports to the EGS president, who has offices in Beaumont and Austin, Texas.

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[100] Tr. at 789-794; the entire description of the management structure is taken from these pages of the transcript.

[101] *Id.*

The Commission has concerns regarding the Company's management structure. It is not clear from the evidence that managers actually have the authority and matching resources to supervise their specific areas.[102] Those responsible for system reliability have little control over the vegetation management area, even though vegetation management has a major impact on how well the T&D system functions. The Company's internal audit concluded that there was no overall strategic plan in place to set performance strategies, and that hindered management in accomplishing business objectives and goals.[103] While EGS' representatives explained that recent changes in management structure were aimed at increasing communication, they also revealed that there was no structured way for the management to track and resolve problems reported by the employees.[104] In addition, managers' bonuses are tied in part to cost-cutting which may conflict with efforts to improve system performance.[105]

The Commission concludes that those who are responsible for the reliable performance of the Company's distribution system in Texas must also have the necessary authority and resources at their full disposal to maintain the system. The managers in the Texas territory must have clearly delineated powers and should be accountable to a unified higher management. The current, bifurcated management structure, under which local Texas supervisors report to multiple supervisors, is an obstacle to effective and reliable operation of EGS' Texas system.

c. Spending Levels

An issue addressed at length in this docket involved the Company's record of investment in the T&D system, particularly in maintenance. While there is hardly a

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[102] Tr. at 791-92.

[103] HLFCCG Ex. 1, Patton Direct Testimony, Internal Audit and Risk Assessment at 4.

[104] Tr. at 204-05.

[105] Tr. at 475, 847. General Counsel Ex. 20. Also, EGS internal risk assessment studies for vegetation management and distribution maintenance list cost-cutting as a major business goal.

substitute for sufficient O&M expenditures, the Commission will not prescribe a specific level of spending that may guarantee adequate service quality, and, at present, is not keenly interested in past expenditure levels. The Commission is primarily interested in results. As noted in the March 7, 1997 Supplemental Preliminary Order in Docket No. 16705, the Commission recognizes "that there may be a point of diminishing returns above which the dollars or resources allocated to service quality become unreasonable and fail to be cost effective."[106] That crossover point is not set in this docket, and it is not intended to be set. EGS is responsible for determining sufficient spending levels and for the appropriate allocation of resources to O&M, distribution capital additions, and other categories in order to meet its obligation to provide adequate service quality.

In the hearing, EGS witnesses maintained that the Company had increased T&D spending since the 1993 merger; that inspection and measurement standards had improved; and that its spending on service quality programs equaled or even exceeded that of other utilities.[107] It is not certain, however, that EGS actually increased spending because expenses were not categorized clearly. Increased spending, if any, shows just that--increased spending; it does not measure how the quality of service has improved, or whether the service is adequate in accordance with PURA. Nonetheless, EGS is required to provide *continuous and adequate* service in accordance with traditional reasonable and necessary cost standards.[108]

In a memo dated October 31, 1995, a Company official discusses vegetation maintenance spending in the Southern Region and points to a recently implemented 20 percent reduction in allocations which, he expresses, cannot be sustained by any region

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[106] Supplemental Preliminary Order at 2, Docket No. 16705 (Mar. 7, 1997).

[107] Tr. at 760; EGS IB at 7-10.

[108] The Commission would expect some increases in spending since the 1993 merger because GSU, facing bankruptcy, would have presumably reduced even the necessary expenses.

without an adverse effect on customer service.[109] The parties generally agreed that spending on O&M decreased, while distribution capital additions slightly increased.[110] The Internal Audit department of the Company in its distribution risk assessment study identified the budget process which allocated dollars to the regions based on past history rather than system needs as one of the problems that needed to be resolved.[111]

After evaluating the record evidence, the Commission concludes that expenditure levels for O&M are confusing and unclear, and pose a problem regarding tracking and accountability. While the Commission declines to state specific amounts to be spent, proper tracking and accounting of expenditures, both by type and jurisdiction, are essential. For example, the Company was unable to explain a 50 percent increase in the miscellaneous Federal Energy Regulatory Commission (FERC) Account 588.[112] It is virtually impossible to ascertain how much of the O&M budget is actually spent in the Texas jurisdiction or for distribution capital additions as compared to system maintenance.

The Commission concludes that expenditures for O&M must be readily available and verifiable. The same applies to the oft-mentioned, but never specified or quantified, "increased efficiencies" used to justify cutting costs.[113] For such claims to have any weight, the Company must have a ready and reasonable explanation together with supporting documentation.

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[109] General Counsel Ex. 28 at 2.

[110] Tr. at 134, 248; 353-54; General Counsel Ex. 1, Ethridge Direct Testimony at 20, 27; Cities Ex. 1, Lawton Direct Testimony at 8.

[111] General Counsel Ex. 30 at 7.

[112] *Id.* at 9; Tr. at 153-54.

[113] EGS Ex. 8, Ervin Supplemental Direct at 16, 19-20.

5. Pockets of Unreliability; Customer Service

a. Pockets of Unreliability

One of the issues identified in the Supplemental Preliminary Order in Docket No. 16705 involves pockets of particularly unreliable service,[114] such as the feeder Tamina, which had 41.3 hours of outage time in one year.[115] Rural customers are more likely to experience outages and wait longer for restoration. The Company admits to areas of lower reliability[116] and agrees that "outliers" must be improved.[117] The Company's practice--seemingly logical--of first restoring and clearing areas with most customers has led to the same customers experiencing repeated lower-quality service. In addition, the Company maintains a list of "politically sensitive" accounts, which suggests that some customers may receive preferential treatment.[118]

The Commission concludes that there should be a high standard of service for all customers, including a set minimum standard below which no customer would fall, and that the Company needs to bring all of its worst performing poles and feeders into compliance with that minimum standard.

b. Customer Service

The Company has maintained, from the outset of this case, that its service is not deficient, but that it simply faces a "customer perception" problem. The Company knows that it has a large number of customers who are not satisfied with their electric service.[119]

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114 Supplemental Preliminary Order at 3, Docket No. 16705 (March 7, 1997); *see also,* General Counsel Ex. 7 at 36.

115 General Counsel Ex. 3, Eckhoff Direct Testimony, Appendix H.

116 Tr. at 122, 223, 652.

117 Tr. at 223-24.

118 Tr. at 396-97.

119 Tr. at 219. The Company's internal customer survey showed declining satisfaction levels from 1995 to 1996, Tr. at 198-200.

Based on the record, the Commission concludes that EGS customers' perceptions are justified. The same concerns were reflected in the testimony of city officials charged with protecting the health and safety of their citizens. Of particular note was the evidence that a municipality was compelled to call upon its volunteer firefighters to disconnect live electric wires because the Company's personnel were not available to perform this highly dangerous task.[120]

The Company's inadequate service quality is not necessarily an outgrowth of a lack of "money" or "expenditures." The Company has available funds that should be sufficient to provide higher-quality service, as may be gathered from the fact that the entire O&M budget was not spent.[121] It should be noted that the internal risk assessment study on distribution line construction and service restoration lists as the first priority improvement in customer perception of energy delivery and improvement in reliability only as a second priority.[122]

EGS' customers and the Commission believe that the Company has an obligation to provide continuous and adequate service, and that significant improvements in EGS' performance are needed. Section D, below, outlines the outcomes EGS must attain for the Commission to be satisfied that those improvements have been made. An improvement in EGS performance will eventually lead to more favorable perceptions and evaluations by the Company's customers.

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[120] Tr. at 376.

[121] Tr. at 468-70.

[122] General Counsel Ex. 30 at 1.

D. Remedies

Based on the foregoing analysis, the Commission concludes that the Company's service quality must be improved. The following incentive plan lays out remedies to help EGS achieve such improvements. The five essential components of the plan are as follows:

1. A reduction in the return on equity divided into two parts: an adjustment component that recognizes EGS' current service quality is not adequate, with amounts to be refunded to customers, and an incentive-pool component to encourage future improvements in service quality;
2. Adoption of minimum and target levels for SAIDI and SAIFI as recommended in General Counsel's testimony, including improvement in the worst- feeder performance; establishment of standards for major-storm data; and reporting requirements;
3. Partial adoption of customer service performance benchmarks as recommended in General Counsel's testimony;
4. Establishment of a quality assurance requirement to ensure improved performance through the hiring of an independent consultant consistent with the amended, non-unanimous stipulation; and, to guarantee the accuracy of all data, hiring by the Company of an independent auditor to review all reports.[123]
5. A customer information and notification requirement.

1. Reduction in the Return on Equity and Incentive Pool

Drawing from the recommendation in the testimony of Cities' witness Lawton, the Company will be assessed a 60-basis point reduction in its ROE adopted in Phase II of Docket No. 16705. This reduction shall be implemented in recognition of the historically inadequate performance of EGS' distribution system. The Company will be required to refund current overcollections, including all appropriate taxes, for the period

[123] EGS had filed an amended, non-unanimous stipulation regarding the hiring of an independent consultant to assess Company's distribution system, including a review of the service quality processes. The Commission approved the stipulation with modifications on January 15, 1998.

starting with June 1, 1996, the effective date of any rate reductions ordered in Docket No. 16705, up to the effective date of this order.[124]

Going forward, the Company will collect the amount equal to one-half of the 60-basis point reduction, plus appropriate taxes, and deposit that amount in an interest-bearing escrow account to create an incentive pool. The Company may earn this escrowed amount back by achieving specific performance targets. The other one-half of the 60-basis point reduction, plus appropriate taxes, will be retained by the ratepayers. The performance evaluation year will be a 12-month period, commencing on November 1, and ending on October 31. For SAIDI and SAIFI minimum level compliance, SAIDI and SAIFI target level compliance, and compliance with the billing-error rate and call center performance targets, the initial evaluation period shall commence on November 1, 1997, and end on October 31, 1998. For service installation, line extension, and light replacement customer service performance measures, the initial evaluation period shall commence on May 1, 1998, and end on October 31, 1998. Thus, EGS' performance during the initial measurement year for these three performance measures shall be based on only six months of customer service performance. During subsequent years, EGS' performance shall be based on twelve months of customer service performance. At the end of each performance evaluation period, if the Company fails to achieve stated performance benchmarks in any of the three areas (SAIDI and SAIFI minimum levels, SAIDI and SAIFI target levels, and customer service), a corresponding portion of the incentive pool will be refunded to distribution-level customers, divided on a pro-rata basis within each customer class, except as noted below. If the Company successfully reaches all of the benchmarks, the full amount of the incentive pool will revert back to EGS.

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[124] The effective date of this Order for the purposes of the requirements set forth herein is the date on which this Order is no longer subject to rehearing.

The performance evaluation year is intended to coincide with the filing requirements of the Commission's Electric System Service Quality Report (ESSQR) forms. If the Commission were to change the ESSQR form time periods to a calendar-year basis, the performance evaluation periods discussed above for EGS shall change to be consistent with the Report form periods.

Performance will be evaluated, and the incentive pool will be divided, according to three measures: (1) improvement in the minimum performance levels for SAIDI and SAIFI for worst feeders; (2) improvement in the target performance levels for SAIDI and SAIFI for average feeders; and (3) improvement in customer service performance, which has five components: (a) billing-error rate, (b) connection rate at the call center, (c) timeliness in completing service and meter installations, (d) timeliness in completing line extensions, and (e) timeliness in replacing and/or repairing service and street lights.

For the purposes of determining what amount, if any, the Company will earn back, the portions of the incentive pool will be represented by the following benchmarks: SAIDI and SAIFI minimum value improvements for the "worst" feeders (described below) will count as one-third of the pool; SAIDI and SAIFI target value improvements will count as one-third of the pool; and customer service improvements will count as one-third. Failure to achieve a measure will result in refunds to the affected customers based on the requirements for that specific measure. SAIDI and SAIFI will be calculated on a feeder-specific basis.

The Company has stated it does not have the ability to measure customer-specific feeder performance, and thus cannot calculate customer-specific refunds. For the first measure, however, refunds shall be provided to all customers taking service from a feeder that fails to meet the SAIDI and SAIFI minimum acceptable levels as recorded over a one-year period. These refunds are more customer-specific than currently contemplated by the Company, but because only a small number of feeders is expected to fall into this category, the refund calculations should not pose an insurmountable problem.[125] For the second measure, if the Company fails to achieve the specified SAIDI and SAIFI target level improvements, refunds shall be made to all Texas, distribution-level customers. For the third measure, failure to meet the standard for any of the customer service components will result in pro-rata refunds to each of the distribution-level customers. Distribution-level customers are meant to be those Texas, retail residential and small commercial ratepayers whose contract demands are less than or equal to 100 kW.

Feeder-specific refunds shall be distributed in a single billing period in proportion to and limited by each customer's total annual electric usage (i.e., no customer shall receive a refund greater than the total amount paid by that customer for the service in that year). If any money remains in the pool, the amount shall be refunded to all distribution-level customers on a pro-rata basis. All refunds shall be labeled "Service Quality Refund" on the customer's bill and shall be directed to the current customer receiving service at a given premise.

2. Minimum and Target Performance Levels

a. Frequency and Duration of Interruptions

The performance benchmarks are drawn from General Counsel's testimony with some adjustments. General Counsel proposed that the Company measure the duration of interruptions using the Average System Availability Index (ASAI). The ASAI index and the SAIDI index are closely related. Since the Company is required to report SAIDI under the Commission's service quality rules, that index will be used as the duration measure. General Counsel, HLFCCG, and Cities agree that performance should be measured feeder-by-feeder rather than through a system average. EGS has accepted a feeder-by-feeder approach for outage frequency.[126] General Counsel's proposal for

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[125] The Company states that it does not have the ability to tie specific feeders to specific customers; it is expected, however, that the number of feeders involved is such that manual calculations will be possible or the Company can use its TACTICS program. Tr. at 445-46.

[126] Tr. at 228.

feeder-by-feeder SAIFI and SAIDI targets is presented in Table 1, where the SAIDI targets are converted from the ASAI values recommended by General Counsel.[127] The Commission adopts the following performance targets for use by EGS as its reliability performance standards.

Table 1: General Counsel's Proposal for Interruption Performance Measures

Index Value	Minimum Acceptable Value (annual)	Target Value (annual)
SAIFI	3.8 interruptions	2.6 interruptions
SAIDI	315 minutes (5.25 hours)	158 minutes (2.63 hours)

Source: Eckhoff Direct Testimony at 7.

General Counsel's testimony indicates that distribution feeders serving approximately 90 percent of EGS' Texas customer meters met the minimum acceptable values for SAIDI and SAIFI in 1996.[128] Distribution feeders serving approximately 75 percent of EGS' Texas customer meters met the target values in 1996.[129]

b. Minimum Performance Benchmark

General Counsel presented testimony to show that a certain percentage of EGS' feeders fall below the minimum acceptable values for SAIDI and SAIFI. As part of the remedial plan, the Company must achieve 95 percent compliance with the minimum acceptable values in 1998, so that no more than 5 percent of distribution feeders serving EGS' Texas customer fail to meet the minimum acceptable values for SAIDI and SAIFI.

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[127] General Counsel Ex. 3, Eckhoff Direct Testimony at 7. HLFCCG recommends an annual feeder-by-feeder standard for SAIFI of 3 interruptions and for SAIDI of 200 minutes. HLFCCG Ex. 1, Patton Direct Testimony at 29.

[128] General Counsel reported that feeders serving 89.97 percent of EGS' Texas customer meters met the SAIFI minimum value, and 90.84 percent met the ASAI minimum value. General Counsel Ex. 3, Eckhoff Direct Testimony at 33-34.

[129] General Counsel reported that feeders serving 75.6 percent of EGS' Texas customers met the SAIFI target value, and 76.86 percent met the ASAI target value. *Id.*

For the following year, the compliance level will be raised to 98.5 percent. In addition, in year 2 and thereafter, EGS must also meet the following conditions: (1) two or more feeders served by the same substation may not fail to attain any minimum acceptable value; (2) no feeder may fail to attain the minimum acceptable value for two or more consecutive years; and (3) 98.5 percent of all meters must receive service at a level meeting or exceeding both minimum acceptable values. Feeders with 5 or fewer meters shall not be considered in determining whether EGS has met these compliance standards. The Company will maintain or exceed the 98.5 percent compliance with these standards in the subsequent years.

To document and track this improvement, the Company shall identify the worst-performing feeders as discussed herein. EGS shall file SAIDI and SAIFI performance data for all feeders in the following way: (1) exclusive of storm effects and using the SAIDI and SAIFI definitions of major events as contained in the Commission's Electric System Service Quality Report filing (PUC Project No. 15013), and (2) inclusive of all such storm effects and defining major weather events as an ice accumulation of at least one inch of ice within the period of 24 hours, or winds greater than 80 miles-per-hour. Further, EGS shall rank all of its 431 Texas distribution feeders from best to worst according to SAIFI numbers calculated as described above. A list of the worst 10 percent shall be submitted as a part of the June 15, 1998 ESSQR filing. Because the report asks for data on the worst 5 percent of the feeders, the Company shall supplement its filing for the purposes of this docket. If the Company fails to meet the minimum acceptable value benchmark or the major-storm restoration measure for that year, as described below, one-third of the incentive pool amount, plus appropriate taxes, will be refunded to customers served by all non-complying feeders.

c. Target Performance Benchmark

In 1998, for all feeders, the Company must achieve 85 percent compliance with General Counsel's recommended target levels for SAIDI and SAIFI to retain the corresponding portion of the incentive pool (i.e., the Company must improve up to the target levels an additional 10 percent of its feeders, from 75 to 85 percent). In the following year, SAIDI and SAIFI compliance with the target levels will be raised to 90 percent of feeders, and this level will be maintained or exceeded in the future. If the Company fails to meet the target performance benchmark, one-third of the incentive pool, plus appropriate taxes, will be refunded to all Texas distribution-level customers.

d. Treatment of Major-Storm Data

The record shows that extreme weather events can cause major outages. For the purposes of record-keeping and performance evaluation, it is necessary to define extreme events according to actual weather conditions rather than the effect weather has on the T&D system. For the purposes of its supplemental filing, EGS shall define extreme weather as an ice accumulation of at least one inch of ice within the period of 24 hours, or winds greater than 80 miles-per-hour. The Company shall keep its records in a way that includes all weather events, and a separate set that includes only the major-weather events. The determination of the Company's performance regarding SAIDI and SAIFI benchmarks shall be calculated based on the all-inclusive data. In addition, the Commission adopts as the performance measure for major-weather events the complete restoration of all customers' electric service no later than 120 hours after the initiation of such an event (i.e., when an accumulation of one inch of ice or 80 mph wind have been recorded). Failure to achieve this measure will preclude the Company's recovery of the one-third of the incentive pool, plus appropriate taxes, associated with the SAIDI and SAIFI minimum acceptable level compliance for that year.

If an extreme-weather event occurs on the system, and the Company believes it has a detrimental effect on the overall performance for that year, the Company may submit a good cause exception filing for the Commission's consideration on whether to include such an event in the annual evaluation of compliance with set benchmarks.

e. Reporting Requirements

As discussed above, the Company shall file collected data regarding performance measures on a semi-annual basis, which filings shall coincide with the filing dates of the Commission's ESSQR form. In addition to that filing, on March 1 of each year beginning in 1999, the Company shall file a proposed reconciliation statement showing the level of achievement with the established benchmarks to qualify for any part of the incentive pool. The filing shall be audited by an independent auditor prior to filing, and the auditor's report shall be filed with the proposed reconciliation statement. If and when the Commission approves the filing, the Company shall retain the appropriate portion of the pool or refund the corresponding portion, plus appropriate taxes, to its Texas distribution-level customers, as directed by the Commission. SAIDI and SAIFI performance data shall be reported according to the following schedule: May through October data due on December 15; November through April data due on June 15 of each year.

3. Customer Service Performance Benchmarks

The performance measures listed below in Table 2 are drawn from General Counsel's recommendations, with the exception of security and street light replacement, which is based on a recommendation made by the Company.[130] In its reply brief, EGS adopted many of the components of General Counsel's recommended performance measures for customer service.[131] For the purposes of this remedial plan, each customer service measure will be computed for the time interval noted in Table 2, and reported to the Commission every six months, consistent with the filing dates for the service quality reports, as a separate Customer Service Report. If all five targets are achieved by EGS in one given year, the customer service portion of the incentive pool will be retained by the

[130] General Counsel Ex. 7, Goodman Direct Testimony; General Counsel Ex. 5, Burrows Direct Testimony, Attachment JBG-8.

[131] EGS Reply Brief at 17-21.

Company for that year; otherwise, that portion of the incentive pool, plus appropriate taxes, will be refunded to distribution-level customers on a pro-rata basis.

Table 2: Performance Targets for Customer Service Measures

Customer Service Measure	Performance Target
Billing-error rate	The Texas system average monthly rate of actual customer over-billing errors per 1000 customers shall not exceed five.
Call center performance	Seven days a week, 24 hours per day, on a monthly basis, in every EGS call center, 85 percent of the time, calls shall be answered within 30 seconds.
Service installation	In any distribution substation service area, 90 percent of applications for new electric service and meters not involving line extensions or new facilities shall be filled within five working days, excluding those orders in which a later date is specifically requested by the customer. Service installation compliance will be measured on a quarterly basis.
Line extensions	In any distribution substation service area, 85 percent of requests for line extensions or new facilities shall be completed within 60 working days, excluding those orders in which a later date is specifically requested by the customer. This standard includes orders for new service and other services, installations, moves, or changes, but not complex services. Line installation compliance will be measured on a quarterly basis.
Light replacements	In any distribution substation service area, 90 percent of all customer reports of security and streetlight outages shall be corrected within 48 hours. Light replacement compliance will be measured on a quarterly basis.

Note: Definitions of specific terms are adopted from J.B. Goodman Direct Testimony, Attachment JBG-8.

After EGS files its first annual customer service report on December 15, 1998, the Commission Staff will work cooperatively with any party who requests it to review performance data collected by EGS relevant to the performance targets, established in Table 2 for new service installations, line extensions, and street lights, in order to determine whether the targets should be adjusted and, if so, in what manner. No earlier than April 1, 1999, any party may petition the Commission to revise these three customer service measures and targets. In its December filing each year, EGS shall, for the purposes of this docket, provide an annual, audited summary of customer service performance data.

4. Quality Assurance Proposal; Independent Consultant; and Independent Auditor

According to the terms of the amended, non-unanimous stipulation, the Company shall hire an independent consultant to assess the distribution system, develop strategies for improvement, revise data collection practices, and set up evaluation criteria procedures spelled out in the order approving that stipulation as modified.[132] Testimony in this docket exposed inconsistencies in EGS' collection, recording, and reporting of service quality indices, including SAIDI and SAIFI. The Company shall develop a quality assurance program that guarantees accurate and consistent reporting of all collected data. The Company shall file its quality assurance proposal no later than August 16, 1998.[133] The deadline shall be extended one day for every day the consultant's report addressing the EGS distribution system is filed beyond July 16, 1998. This proposal shall be developed with the input and in conjunction with the work done by the independent consultant hired under the terms of the amended, non-unanimous stipulation. To guarantee that all data and reports collected by EGS and filed with the Commission are accurate and consistent, the Company shall hire annually an independent auditor to review such data and reports.

5. Customer Information/Notification

The final component of the incentive plan is the information and notification requirement. Following its annual reconciliation statement filed with the Commission, the Company shall include an insert in bills to its customers that explains the service quality requirements, the Company's performance during the preceding annual period, and the amount of the refund to distribution-level customers. The insert shall contain

[132] On December 17, 1997, EGS, OPUC, HLFCCG, Cities, and General Counsel, jointly filed a supplementary motion for entry of an order consistent with proposed amendments to a previously filed non-unanimous stipulation.

[133] The quality assurance requirement appears consistent with the amended non-unanimous stipulation related to hiring a service quality consultant filed by EGS and other signing parties, on December 17, 1997.

instructions to customers on who to contact to report broken or malfunctioning street lights. The proposal for the scope and content of the bill inserts shall be included in the Company's annual reconciliation filing.

IV. Findings of Fact and Conclusions of Law

The preceding discussion explains the Commission's factual and legal conclusions with regard to the issues presented in this docket. In accordance with TEX. GOV'T CODE ANN. § 2001.141, the Commission separately states the following findings of fact and conclusions of law.

A. Findings of Fact

Procedural History

1. On November 27, 1996, EGS filed with the Commission its transition/rate case in Docket No. 16705.

2. The Commission referred the case to SOAH on December 5, 1996. The preliminary order issued by the Commission on January 24, 1997, in Docket No. 16705 directed that the docket "address specific service quality standards that will apply after the transition [proposed by EGS]."

3. On March 7, 1997, the Commission issued a supplemental preliminary order in Docket No. 16705 that focused specifically on service quality issues. That order delineated three questions which must be addressed: (1) Whether EGS has an effective and prudent management policy in place that devotes sufficient resources to ensure adequate and reliable service to its ratepayers; (2) Whether there appear patterns of variable service quality in EGS' service territory, and if so, what is the cause and potential resolution of these variations; (3) Whether the Commission should implement procedures, and if so, what procedures can it implement, to monitor service quality on EGS' system, and to respond to situations in which EGS' service quality falls below the benchmark levels.

4. SOAH segmented the hearings in Docket No. 16705 (SOAH Docket No. 473-96-2285) into four phases to address numerous transition and rate issues separately. The service quality issues were scheduled for hearing in early November 1997, in the "Competitive Issues" phase of the case.

5. At the November 4, 1997 Open Meeting, Chairman Pat Wood, III, and Commissioner Judy Walsh voted to sever the service quality issues from Docket No. 16705 and determined that the Commission itself would hear and resolve these issues.

6. An order issued on November 4, 1997, established Docket No. 18249 to address the service quality issues. The order also established procedures by which the Commission would hear and rule on the service quality issues directly.

7. Chairman Wood and Commissioner Walsh convened and presided over a public hearing on the merits on November 20 and 21, 1997, to address EGS' service quality issues. EGS, Cities, HLFCCG, and General Counsel submitted their testimony and exhibits into evidence and conducted cross-examination. The Chairman and Commissioner Walsh also directed questions to the witnesses.

8. EGS, Cities, HLFCCG, and General Counsel filed post-hearing briefs in this docket on December 2, 1997. Reply briefs were filed by these same parties on December 9, 1997. The Office of Public Utility Counsel and the Attorney General's Office filed statements on December 2 and 9, 1997, respectively, supporting the briefs of the Cities and HLFCCG.

9. The Commission issued its Final Order in this docket on February 13, 1998.

10. On March 5, 1998, General Counsel and EGS filed motions for rehearing.

11. At the March 19, 1998 open meeting, the Commission granted extensions to rule on the motions for rehearing until May 14, 1998, and to file replies until March 25, 1998.

12. On March 25, 1998, a joint reply to motions for rehearing and motion for entry of order consistent with the parties' stipulation and agreement (the Stipulation) was filed and signed by General Counsel, EGS, HLFCCG, and OPUC.

13. The Commission granted rehearing at the April 1, 1998 open meeting and also approved the Stipulation.

<u>Notice</u>

14. Hearings held on November 20 and 21, 1997, were properly noticed in accordance with TEX. GOV'T CODE ANN. §§ 551.041, 551.043, 2001.051, and 2001.052.

15. This matter was scheduled for discussion in open meetings convened on December 17, 1997, January 14, 1998, and April 1, 1998, for which notice was given pursuant to TEX. GOV'T CODE ANN. §§ 551.041 and 551.043.

EGS

16. EGS is a public utility subject to the jurisdiction of this Commission in accordance with PURA §§ 14.001, 31.001, 32.001, 33.122, and 36.001 through 36.156.

17. EGS is a wholly-owned subsidiary of Entergy, a holding company incorporated in Delaware and registered with the federal Securities and Exchange Commission in accordance with the Public Utility Holding Company Act.

18. Entergy acquired Gulf States Utilities, Inc., to create EGS, effective as of December 31, 1993.

19. EGS operates in Louisiana and Texas, and through its parent holding company is affiliated with investor-owned electric utilities located in Louisiana, Mississippi, and Arkansas. Entergy's headquarters is located in New Orleans, Louisiana.

20. EGS' Texas service territory covers the southeastern part of the state. EGS' principal office in Texas is located in Beaumont.

Management Structure

21. In Beaumont, EGS employs, among others, a network manager and a reliability supervisor. These managers report to a franchise director, also located in Beaumont.

22. The network manager's and reliability supervisor's responsibilities include managing and dealing with system reliability, outages, restoration, and vegetation management.

23. The network managers report to the franchise director located in Beaumont, who reports to the senior vice president of distribution operations, employed by Entergy Services, Inc., and located in New Orleans.

24. In New Orleans, the vice president of distribution operations answers to a utility group president, who reports to a chief operating officer, and ultimately the chief operating officer of Entergy.

25. The network manager, reliability supervisor, and franchise director do not report to the EGS president, who has offices both in Austin and Beaumont.

26. The Company management structure is ill-suited to assure best supervision of the T&D system in the Texas territory. The supervisors in Texas answer to multiple directors in Louisiana, do not have all the necessary resources at their disposal, and their bonus incentives are tied in part to successful cost-cutting.

Transmission System

27. The construction of EGS' transmission system started in 1924. Half of the transmission lines currently in service were added in the 1950's and 1960's. Since 1977, 12 percent of the lines have been newly built or rehabilitated.

28. The Commission finds that the physical state of EGS' transmission system is adequate; few transmission-related outages or circuit breaker operations occurred.

29. Transmission line ROW appear to be clear.

30. The EGS transmission system appears to provide adequate, continuous, and reliable service.

Physical Condition of Distribution System and Pole Inspection Program

31. EGS serves approximately 318,279 customers in Texas. The distribution system in the state is comprised of 11,472 miles of electric lines; 394,865 poles; and approximately 431 feeders.

32. EGS contracted with Osmose Wood Preserving Company to perform inspections of EGS poles and crossarms in Texas for the years 1995 and 1996.

33. In 1995 and 1996, Osmose field inspectors inspected a total of 37,233 wood poles in eight different areas. The poles reviewed account for 9.4 percent of the total number of poles in EGS' Texas system.

34. Although the Osmose inspections focused on particularly troubled spots of the distribution system in Texas, certain areas revealed a number of deficient poles that was excessive by any measure.

35. Osmose survey results show wide fluctuations in percentages of poles with decay, from 8 to 37 percent, with the average percentage being 17.9 percent.

36. EGS proposes to implement a new pole inspection program, through which approximately 35,000 poles will be inspected annually, so that all poles in the Texas jurisdiction will be inspected by the end of the 10th year.

37. General Counsel selected Drash Consulting Engineering Inc. to survey 33 uniformly distributed substations from the Texas portion of the EGS distribution system.

38. General Counsel recommended that Drash inspect a representative sample of 591 poles on feeders originating from these 33 substations, of which Drash visually surveyed 582, or 98.42 percent, of poles.

39. The Drash report picked for inspection approximately every 5th, 10th, or 15th pole from the substation. The age of the poles was determined by visual inspection.

40. Drash filed its report on August 11, 1997, in which it identified 59 of 582 poles with structural deficiencies, such as rot, decay, or leaning, and 72 poles with encroachments by tree limbs and vegetation build-up.

41. The Drash survey did not use specific criteria by which to evaluate the condition of the poles, but relied on the inspectors' experience.

42. Beginning on May 12, 1997, the Commission Staff performed limited, random inspections of EGS' poles in the Vidor, Orange, Bridge City, Port Arthur, and Port Neches areas. The Staff inspections also encompassed the northern portion of the system to the western limits of EGS' service area.

43. By August 1997, the Commission Staff surveyed 60 poles, and found that 6.7 percent had equipment deficiencies and 63 percent had ROW problems.

44. In general, the distribution system is in adequate condition; however, there are numerous poles with decay, in need of repair or replacement, and many lines and poles that need vegetation clearing.

45. The inspection program carried out by the Company has not been sufficiently extensive or adequate to fulfill its purpose of securing reliable service.

46. The Company's distribution system maintenance practices have failed to assure continuous and adequate service to EGS' customers.

Reliability Indices and Performance Standards

47. EGS uses the following standards and systems to collect and record performance measures: System Average Interruption Frequency Index (SAIFI); System Average Interruption Duration Index (SAIDI); Distribution Interruption System (DIS); TACTICS; and a System Control and Data Acquisition devise (SCADA). General Counsel also used the Average System Availability Index (ASAI) as an outage measure.

48. EGS begins to record a specific outage only after a customer calls in to the Company to complain. Timing of the outage duration starts after the customer alerts the Company.

49. System-wide, the average customer in EGS' Texas territory experienced outages totaling 133 minutes (as recorded in SAIDI) in 1996. The system-wide SAIFI in Texas for 1996 was 2.648 interruptions.

50. Fifty of 431 feeders (11.6 percent) in the EGS' Texas system were below the minimum ASAI standard recommended by General Counsel (99.94 percent or 157 minutes), while 37 (8.58 percent) feeders missed the minimum SAIFI standard of 3.8 interruptions per year.

51. Eighty-three feeders or primary circuits experienced outage times in excess of 200 minutes during 1996.

52. Eighteen feeders, serving 9,457 meters, are "historically deficient"[134] for SAIFI, and seventeen feeders, serving 10,835 meters, are "historically deficient" for ASAI.

53. Nine percent of the meters did not meet minimum ASAI standards. Similarly, 10 percent of the meters fell below minimum SAIFI benchmarks.

54. Customers on several feeders suffered significantly more interruptions than the average customer, and with lengthier outages: feeders Tamina and China recorded SAIDI scores of 2,477 minutes and 934 minutes, respectively, while feeder Dobbin reached a SAIDI value of 699 minutes. Feeder Pleasure scored 10.2 interruptions, feeder Crystal had a SAIFI of 8 interruptions, and Cordrey scored 7.56 interruptions.

55. Sixty-five feeders with approximately 58,000 customers have a SAIFI rating less than the 10-year Company average.

56. EGS testified that it restores first those feeders with the highest numbers of customers. Likewise, it clears vegetation first on the feeders with the most customers.

57. EGS excluded certain data in calculating its reliability indices. In 1994, the Company ceased counting outages in areas with less than 500 customers. For the first six months of 1996, the Company reported 35 to 40 percent fewer outages than were reported on average during the first six months of the 1991-94 time-frame.

58. The average outage duration during the first three years after the merger went up to 2.4105 hours, from the average of 1.8220 hours during the seven years preceding the merger.

59. By September 1996, the number of outages reported increased by 80 percent from 1995, due to a greater number of small outages recorded.

60. EGS prepared a Reliability Report for the Southwest Region, issued in May 1994, that summarized reliability performance for the year, compared actual performance with Company goals, identified problem areas, and reported corrective actions.

[134] Historically deficient feeders are those with consistently poor performance over a period of several years.

61. Equipment failures were excluded from the May 1994 Reliability Index, as were outages attributed to public damage, non-preventable trees, load curtailment, transmission line outages, instantaneous outages, and planned outages. EGS began reporting these types of outages again in September 1995.

62. EGS excluded from its performance measures and reliability indices data collected during episodes of extreme weather conditions in February 1994 and January 1997.

63. The measure of outage duration does not take into account either the number of customers who fail to alert the Company to an outage, or the length of time a customer has suffered an outage prior to notifying the Company.

64. Linemen working for or on behalf of EGS make subjective determinations as to the cause, duration, or effect of an outage, which may hinder true and accurate reporting of the outage causes.

65. EGS records and reports its reliability and performance data based on system-wide measures. This method of reporting overlooks recurring individual feeder problems and pockets of disproportionately low service quality.

66. EGS is not technically equipped at the present time to measure SAIDI and SAIFI performances at the individual customer level. The Company, however is able to calculate performance indices on a feeder-by-feeder basis.

67. The Company's data and compiled indices are unreliable because of changing data collection standards, failure to report all relevant information, and manipulation of the data.

Vegetation Management

68. The purpose of vegetation management is to ensure to the extent possible that vegetation in or near ROW does not come into contact with the conductors and either break the wires or cause ground faults.

69. Many of the outages in EGS' service territory result from trees or tree limbs falling into EGS' ROWs or distribution lines.

70. EGS stated that it has a six-year, rural tree-trimming cycle; it calls for a 20-foot clearance. Trees in urban areas, according to the Company, are trimmed on a three-year cycle. The Company did not offer persuasive evidence that these cycles were actually followed.

71. The Company stated that 80 percent of EGS' vegetation management expenditures are allocated to cyclical tree trimming.

72. Texas vegetation management expenses in the post-merger period were $4.99 million in 1994, $5.09 million in 1995, and $4.735 million in 1996. The decrease in spending between 1995 and 1996 is attributed by the Company to unexplained efficiency gains.

73. The total line-miles actively maintained by the Company dropped approximately 30 percent in 1996 from the 1994-1995 levels; EGS witnesses did not explain this decrease.

74. Vegetation management spending increased by 34 percent in 1997, a significant part of which went towards the January 1997 ice storm cleanup costs.

75. Vegetation-related SAIDI and SAIFI values have worsened since the merger. System-wide SAIDI values for Texas have increased from 21.17 in 1994 to 40.36 in 1997. SAIFI values have also increased from 0.31 in 1994 to 0.63 in 1997. As of September 1997, the SAIDI level for 1997 exceeded the SAIDI value for the entire year in 1996.

76. Network managers in EGS' Texas territory have the responsibility to ensure adequate service reliability. Network managers, however, do not directly supervise or fully control the vegetation management program.

77. A 1994 study by Environmental Consultants, Inc., (ECI) proposed specific recommendations for EGS' vegetation management to include herbicide and tree trimming based on plant species, equipment scheduling in the planning process, aggressive pursuit of tree removals, and performance measures for contractors. EGS has not implemented the recommendations proposed by ECI.

78. Entergy's Internal Audit department conducted a comprehensive risk assessment study of the vegetation management program in 1996, and concluded that sufficient strategic planning had not occurred to ensure that Entergy met its objectives. The study also found that the Alliance Agreement between Entergy and vegetation management contractors was not being consistently applied in the various regions, and did not meet business objectives.

79. Power lines cannot be shielded 100 percent from all contact with vegetation; however, the Company's inability to develop and carry out prudent vegetation management policies has resulted in major service disruptions.

80. EGS' management structure does not provide those responsible for ensuring service reliability with direct authority to address or prevent vegetation-related outages.

81. The Company does not have a strategic plan to guide vegetation management efforts.

82. Neglect and backlog of vegetation management projects has posed unacceptable risks of increasing and recurrent service outages, especially during major storms.

83. The Commission finds that the Company's vegetation management efforts have not been adequate, have led to a backlog in vegetation clearing, and have resulted in an unacceptably high risk to the system.

Emergency Preparedness, Response, and Outage Restoration

84. In June 1996, EGS conducted a drill simulating an emergency situation in order to test its emergency response and restoration plans.

85. EGS' emergency plan and procedures are on file with the Commission, and were reviewed by the Commission Staff after the ice storm in January 1997.

86. In Docket No. 16301, *Ice Storm '97 Field Investigations Project*, the Commission Staff concluded that EGS had a good emergency plan in place before the ice storm of January 1997.

87. The Commission defines "major storm" as a weather-related event in which there is a loss of power to 10 percent or more of the customers in a region over a 24 hour period and with all customers not restored within 24 hours.

88. EGS defines major storm as any event in which 10 percent or more of a region's customers are interrupted for 24 hours or more.

89. Many parts of Texas experienced an ice storm of significant magnitude that began early on January 12, 1997, and lasted through the afternoon of January 13, 1997.

90. Most utilities in Texas experienced disruptions in service during the January 1997 ice storm.

91. EGS should have been better prepared to deal with the January 1997 ice storm, given that it had experienced major weather events in 1994 and 1995, and that it had successfully conducted emergency drills in 1996.

92. During the ice storm in January 1997, up to 120,000 of EGS' Texas customers were without power. Restoration took seven days to complete, with temporary emergency crews mobilized from Louisiana, Mississippi, and Arkansas.

93. By January 16, 1997, EGS had more than 2,700 personnel deployed to restore service on various parts of its Texas system.

94. At the public hearing on November 20, 1997, city officials from the towns of Port Neches, Orange, and Nederland described numerous episodes in which the numbers of

EGS workers, equipment, and materials were insufficient to deal adequately with emergency situations. Other officials from Cleveland, Dayton, and Port Arthur gave favorable reports of EGS' performance during the January 1997 ice storm.

95. Mr. Dick Nugent, representing the city of Nederland, testified that after several attempts to reach EGS personnel, city officials had to retrieve an EGS supervisor from his house in Nederland to help them with power restoration efforts.

96. Mr. A.R. Kimler, from the city of Port Neches, testified that local firefighters were deployed to cut down live power lines because EGS stated there were not enough employees to respond at the time.

97. The impact of the January 1997 ice storm was greatly exacerbated by the Company's failure to maintain its ROW clear of excessive vegetation.

98. While the Company has emergency plans in place, not all personnel are familiar with the plans, a fact that may have accounted for the Company's uneven and delayed restoration efforts during the January 1997 ice storm.

99. It may be uneconomic for EGS to build, operate, or maintain a 100 percent storm-proof system. The January 1997 ice storm, however, revealed that EGS must implement a better preventive maintenance program and faster customer response initiatives.

100. Segregation of major-storm data from non-major storm data in outage duration and frequency reports provides a more accurate method to evaluate EGS' performance on a day-to-day basis, as well as during crisis events.

101. The standard for classifying major storms is to be defined in terms of the severity of the weather-related event, rather than in terms of the impact on the T&D system. Feeders subject to major storms can be defined as those experiencing an accumulation of one inch of ice or more within a 24-hour period, or those exposed to winds of at least 80 mph.

102. EGS' outage restoration efforts during the January 1997 ice storm would have been more effective if: (1) EGS had been more diligent in its preventive vegetation management practices; and (2) it had a better communication and management program in place to deal with emergency situations.

103. The effect and incidence of lightning strikes did not materially affect the quality of service offered by the Company.

<u>Spending Levels</u>

104. System-wide transmission spending followed a generally increasing trend since 1992. No data was presented for transmission O&M expenditures on the Texas portion

of the system.

105. Between 1994 and 1996, distribution maintenance spending decreased by $4 million each year. Half of these cuts ($2 million each year) came from the overhead line maintenance spending.

106. Miscellaneous distribution expenses recorded in Federal Energy Regulatory Commission (FERC) Account 588 increased from just under $3 million in 1991-1993, to $10.3 million in 1995, and $12.4 million in 1996, an increase EGS could not explain.

107. FERC has designated Account 588 for mapping, records, communications, and other miscellaneous expenses such as clerical, stenographic, and janitorial work at buildings.

108. EGS decreased its level of spending for pole and appurtenance replacements by 50 percent during the years 1995 and 1996.

109. EGS' O&M spending has been uneven, lacks clear accounting, and proportionately more is spent on distribution capital additions than on distribution system maintenance.

110. In 1995, most of the spending for distribution capital additions was in the Louisiana area.

111. Efficiency savings have not been identified nor proven in areas where spending levels had been reduced.

112. The Company witness could not explain whether any of the savings from the unspent T&D budget were credited according to the Entergy/GSU merger agreement (PUC Docket No. 11292).

Personnel Levels

113. The Company has carried out substantial cuts in the number of employees assigned to T&D operations: 95 distribution employees in 1995-1996 and 26 in 1997. EGS has increased its use of contract workers during the same periods for a total net decrease of 42 permanent linemen and servicemen since the merger.

114. Since the merger, most the terminated T&D employees were replaced with contract workers. Sixty-six of the terminated T&D employees had on average of 18 years experience with the Company.

115. The Company has no performance measures to evaluate contract-worker efficiency.

116. The ratio of contract employees to permanent linemen and servicemen is now 2:1. The Commission does not oppose the use of contract employees. The present ratio of contract employees to permanent staff, however, is high, particularly in light of the extensive experience lost when many of the permanent employees were laid-off.

117. EGS is expected to structure its line maintenance and vegetation management programs in such a way that adequate numbers of properly trained and supervised employees are promptly available.

118. EGS hired 30 additional contract crews in October 1997, specifically to remedy a backlog of vegetation management projects.

119. The Company lacks a clearly stated strategic plan for vegetation management, and priorities are driven primarily by budget considerations.

Customer Service

120. An EGS customer survey reveals that satisfaction results decreased among all classes of ratepayers and for all components of service from 1995 to 1996, as more customers classified EGS service as "fair" or "bad" than "very good" or "helpful."

121. EGS did not track customer complaints prior to 1995, nor did it track customer service performance standards. EGS began a complaint management system in January 1997 to document every complaint called in to the Company.

122. The Company's automated voice response unit, substituted for live employees, has not led to increased customer satisfaction.

123. EGS has failed to implement sufficient customer service procedures and has a high number of dissatisfied customers.

124. The Company also has, by its own admission, pockets of particularly inadequate service.

125. In a letter dated September 19, 1997, State Representative Mark Stiles wrote to the Commission expressing concern over an increase in the number of EGS customers who contacted him to complain of poor service by EGS.

126. EGS acknowledges that it has a large number of customers who remain unsatisfied with their customer service.

127. EGS' customer service quality is clearly deficient based on the numerous complaints to the Commission and Texas Legislature, and as indicated in the Company's own survey data.

Stipulation

128. In the Stipulation, filed by parties on March 25, 1998, and approved by the Commission at the April 1, 1998 open meeting, the parties, among other provisions, agreed to: (1) lower the compliance level for SAIDI and SAIFI minimum acceptable level to 98.5 percent; (2) make the reporting and evaluation periods consistent with the Electric System Service Quality Report form; (3) provide for a possible review of customer service targets; (4) change the selection process of the auditor; and (5) change the due date of the quality assurance proposal to August 16, 1998.

129. The Stipulation addressed only some of the issues raised by the parties in the motions for rehearing. However, at the April 1, 1998 open meeting, the EGS representative indicated that if the Commission adopted the Stipulation as drafted, the parties would not appeal the Order.

B. Conclusions of Law

1. Entergy Gulf States, Inc., (EGS) is a public utility as defined in PURA § 31.002(1).

2. The Commission has jurisdiction over issues addressed in this Order in accordance with PURA §§ 14.001, 31.001, 32.001, 33.122, 36.001-36.151, and 38.071.

3. The Commission has jurisdiction over all matters relating to the conduct of a hearing in this case, in accordance with PURA § 14.051.

4. This Order is issued in accordance with TEX. GOV'T CODE ANN. § 2001.141.

5. PURA § 37.151(2) requires that EGS provide continuous and adequate service in its certificated service territory.

6. EGS is obligated, pursuant to PURA § 38.001, to furnish service, instrumentalities, and facilities that are safe, adequate, efficient, and reasonable.

7. EGS has failed to provide continuous and adequate service to many of its customers, as required by PURA §§ 37.151(2) and 38.001.

8. In establishing a reasonable return on invested capital, the Commission is required, among other things, to consider the quality of the utility's service. PURA § 36.052(3).

9. The Commission, after notice and hearing, may order an electric utility to provide specified improvements in its service and in a specified area if (a) service in the area is

inadequate or substantially inferior to service in a comparable area; and (b) requiring the company to provide the improved service is reasonable. PURA § 38.071.

10. The remedies proposed in the Stipulation are tailored to achieve the desired result as contemplated in the Final Order; implementation of such remedies is in the public interest.

V. Ordering Paragraphs

1. Upon issuance of a final order in EGS' pending rate case in Docket No. 16705, the Company shall calculate the revenues equal to 60-basis points, and appropriate taxes, of the ROE established in Docket No. 16705.

2. Within 30 days after issuance of the final order in Docket No. 16705, the Company shall submit to the Commission its calculation of the revenues equal to 60-basis points, and appropriate taxes, for Commission review and approval.

3. If a rate reduction is ordered in Docket No. 16705, the Company shall refund to its customers an amount equal to 60-basis points of its ROE authorized in Docket No. 16705, plus appropriate taxes, for the period from June 1, 1996, through the effective date of this Order.[135]

4. As of the effective date of this Order, the Company shall reduce collections from customers by an amount equal to 30-basis points, and appropriate taxes, of the ROE authorized in Docket No. 16705.

5. As of the effective date of this Order, the Company shall establish an interest-bearing escrow account into which it shall deposit, on an on-going basis, the amount equal to 30-basis points, and appropriate taxes, of its ROE authorized in Docket No. 16705.

6. The Company shall hire an independent consultant, according to the conditions set out in the amended, non-unanimous stipulation regarding the hiring of consultants, as approved with modifications by the Commission in this docket. The consultant shall assess the distribution system, develop strategies for improvement, revise data-collection practices, establish evaluation criteria, and perform any additional work as set out in the amended, non-unanimous stipulation.

[135] If the final order in Docket No. 16705 does not mandate any refunds to customers, there will not be a refund of 60-basis points to customers based on this Order for the period from June 1, 1996, up to the effective date of this Order.

7. The Company shall file a quality assurance proposal governing the collection, recording, and reporting of SAIDI and SAIFI, and any other relevant service quality measures by August 16, 1998. This filing deadline shall be extended one day for every day the consultant's report addressing the EGS distribution system is filed beyond July 16, 1998.

8. Twice annually, and starting on June 15, 1998, the Company shall file the Electric System Service Quality Report, including its supplemental filing, to document SAIDI and SAIFI feeder-by-feeder data for each six-month period, calculated in the manner discussed in this Order. The Company shall also submit a listing of the worst performing 10 percent of the Company's feeders, twice annually along with their performance data. Beginning on December 15, 1998, and twice annually thereafter, at the same time as the Electric System Service Quality Reports, the Company shall file its Customer Service Reports, relating to service installations, line extensions, and light replacements. Initial Customer Service Reports related to the remaining customer service measures (billing-error rate and call center performance) shall be due on June 15, 1998. In its December filing each year, the Company shall provide an annual, audited summary of customer performance data.

9. Beginning in 1999, and no later than March 1 of that and each subsequent year, the Company shall file with the Commission its reconciliation proposal for the funds held in escrow according to this Order for the prior calendar year. The Company's annual filing shall be audited by an independent auditor, and the audit shall be filed with the reconciliation proposal.

10. If the Commission determines that the Company has achieved the performance standards set out in this Order for a minimum acceptable level of improvement for SAIDI and SAIFI for the 10 percent of worst feeders and, if applicable, major-storm restoration process, the Company may retain one-third of the amount in escrow for that year; otherwise, the Company shall refund that amount, plus appropriate taxes, to its Texas distribution-level customers taking service from the non-complying feeders, as explained in section D(1) and D(2)(b) of this Order. If the Commission determines that the Company has achieved the performance standards set out in this Order for the target level improvement for SAIDI and SAIFI, the Company may retain one-third of the amount in escrow for that year, otherwise, the Company shall refund that amount, plus appropriate taxes, to all its Texas distribution-level customers, divided on a pro-rata basis within each customer class. If the Commission determines that the Company has achieved the performance standards set out in this Order for customer service, the Company may retain one-third of the amount in escrow for that year; otherwise, the Company shall refund that amount, plus appropriate

taxes, to its Texas distribution-level customers divided on a pro-rata basis within each customer class.

11. In conjunction with its annual reconciliation filing, the Company shall submit a proposal for customer notification. At a minimum, the proposal shall include the content and format for a billing insert that explains the service quality requirements, the Company's performance for the preceding year, street light reporting instructions and telephone number, and the amount of the escrow pool retained by the Company and/or refunded to customers.

12. The Company shall develop and implement, within the six months of the effective date of this Order, a media campaign to inform and educate customers in its Texas service territory about the importance and proper procedure for reporting to the Company malfunctioning or broken street lights.

13. The provisions of the Stipulation are approved as reflected in this Order.

14. The entry of an order consistent with the Stipulation of the parties does not indicate the Commission's endorsement of approval of any principle or methodology that may underlie the Stipulation of the parties. Neither should entry of an Order consistent with the full settlement of the parties be regarded as a binding holding or precedent as to the appropriateness of any principle or methodology underlying the Stipulation of the parties.

15. All other motions, requests for entry of specific findings of fact and conclusions of law, and any other requests for general or specific relief, if not expressly granted herein, are hereby denied for want of merit.

This Order reflects the opinion of Chairman Wood and Commissioner Walsh. Commissioner Curran was not present at the adjudicatory hearing conducted in this docket, and did not participate in the final order and order on rehearing deliberations.

SIGNED AT AUSTIN, TEXAS, the 21st day of April 1998.

PUBLIC UTILITY COMMISSION OF TEXAS

PAT WOOD, III, CHAIRMAN

JUDY WALSH, COMMISSIONER

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